

FIG. 1
(Prior Art)

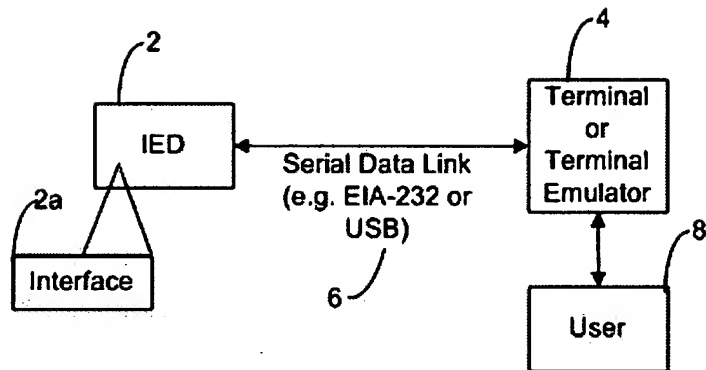
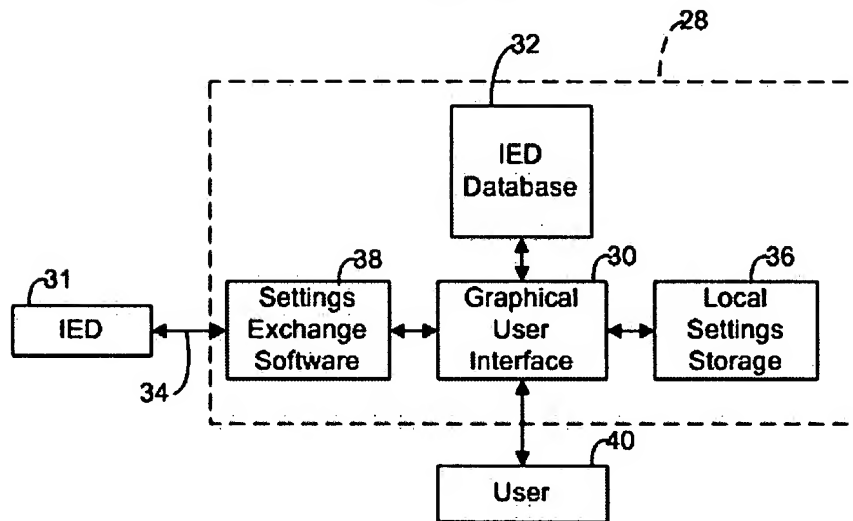
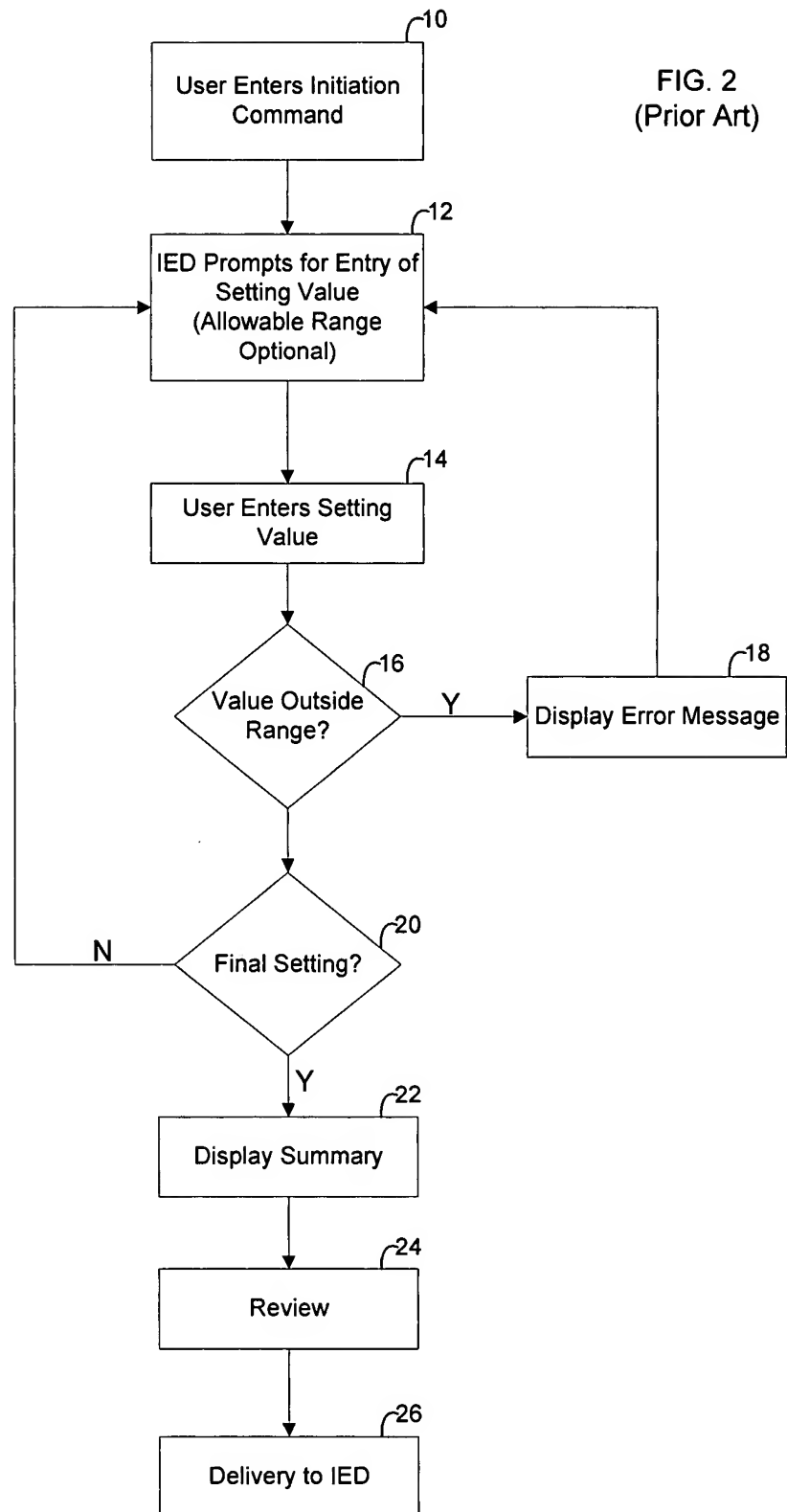


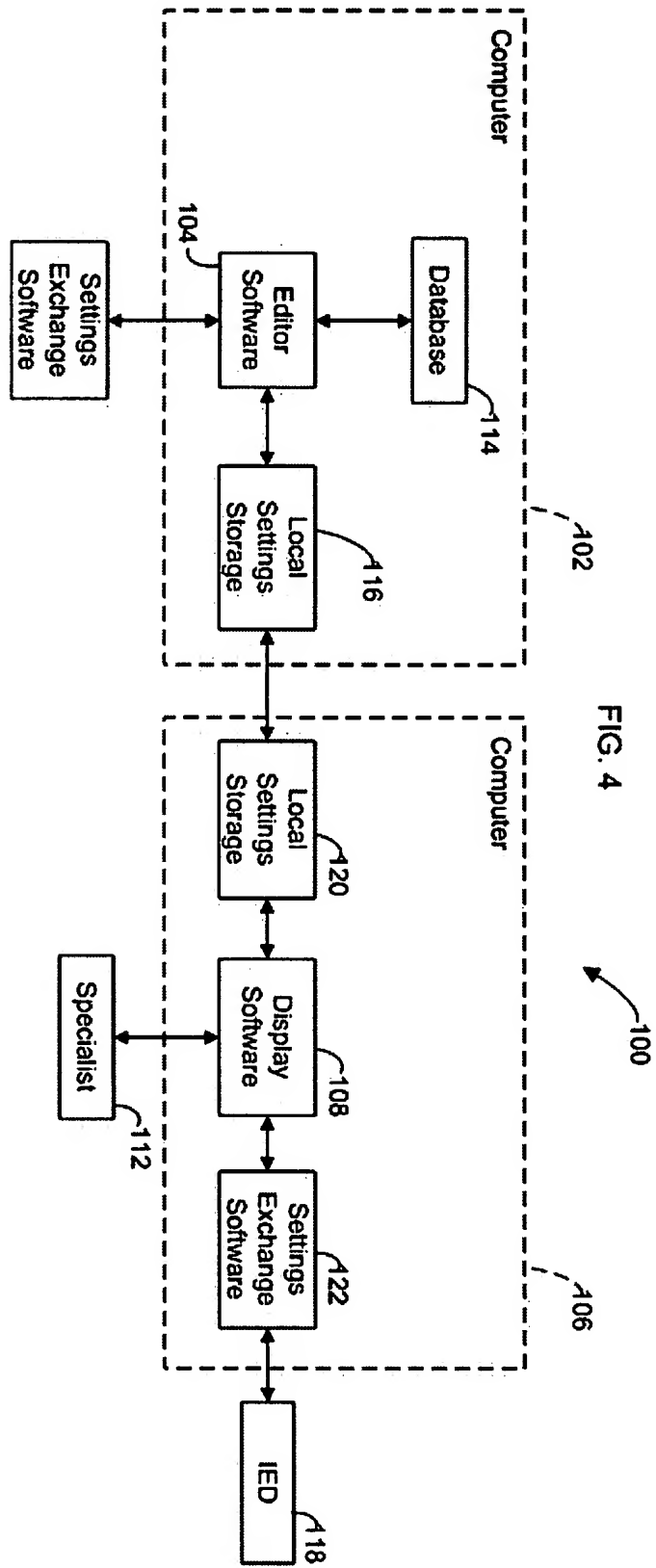
FIG. 3
(Prior Art)



Replacement Sheet

FIG. 2
(Prior Art)





Replacement Sheet

SEL-311L 003 Settings Driver						Driver Version: 2.1.7.4		Date: 11/24/03 4:01:24 PM	Prt #: 0311LSHC4M2E04	Group 1: General Settings	
Not Connected						Direct to COM1 2400 Baud=1		Terminal = EIA-232 Serial	Flo VNet = YModem	Screen capture Tera term... [X] As-Self-control O Design...	
[S] Start [W] Mips Logger/Wireless - Info... [I] Internet C/S											
[F] File Settings Communication Windows Help											
[F] File Options <<	[C] Copy	[M] Merge	[C] Compare	[S] Search	[P] Print	[E] Export	[H] Help				
General Settings											
Relay Identifier Labels											
RID Relay Identifier (3D char)											
TID Terminal Identifier (3D char)											
EXAMPLE: BUS B BREAKER 3											
Previous Value Default Value											
Current Transformer Ratio											
CTR Local Phase (A/B/C) CT RAS Add to Application Design											
200 Range = 1 to 6000											
APP Application											
311L Select 87L, 87L21, 87L2IP, 87LSP, 311L											
EADVS Advanced Settings Enable											
N Select Y, N											
<input type="checkbox"/> Group 1											
<input checked="" type="radio"/> Set 1											
<input type="checkbox"/> Line Current											
<input type="checkbox"/> Backup Pct											
<input type="checkbox"/> Phase Dist											
<input type="checkbox"/> Ground Dist											
<input type="checkbox"/> Phase Inst											
<input type="checkbox"/> Residual Gr											
<input type="checkbox"/> Negative Sr											
<input type="checkbox"/> Phase Time											
<input type="checkbox"/> Residual Gr											
<input type="checkbox"/> Negative S											
<input type="checkbox"/> Out-of-Step											
<input type="checkbox"/> Load Error											
<input type="checkbox"/> Directional I											
<input type="checkbox"/> Voltage Ele											
<input type="checkbox"/> Synchronism											
<input type="checkbox"/> Frequency I											
<input type="checkbox"/> Reducing F											
<input type="checkbox"/> Switch-Unit											
<input type="checkbox"/> Comm. Assi											
<input type="checkbox"/> Zero 1 Ext											
<input type="checkbox"/> Demand Mt											
<input type="checkbox"/> Other Setter											
<input type="checkbox"/> SEL Logic Cc											
<input type="checkbox"/> All Group 1											
<input checked="" type="radio"/> Logic 1											
<input type="checkbox"/> Graphical Logic											
<input type="checkbox"/> Logic Simulator											
<input type="checkbox"/> Group 2											
<input type="checkbox"/> Group 3											
<input type="checkbox"/> Group 4											
<input type="checkbox"/> Group 5											
<input type="checkbox"/> Group 6											
<input type="checkbox"/> Global											
<input type="checkbox"/> SER											
<input type="checkbox"/> Text											

FIG 5A

AcSELEditor® Designer DEMO - C:\Program Files\AcSELEditor Designer\Relay.rdb - (Relay Editor - New Relay 1 [SEL-311L 005 Settings Driver])

File Edit Options Search Import Export Help

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[I^TID] = [UV^Group_1_TID] [I^RID] = [UV^Group_1_RID]	EXAMPLE: BUS B, BREKA.. SEL-311L	EXAMPLE: BUS B, BREKA.. SEL-311L	ASCII string with a maximum length of 30 ASCII string with a maximum length of 30

Variable Selection List

Group 1_General Settings

- Group_1_TID
[E: BUS B, BREAKER 3 ...] [E] (ASCII string with)
- Group_1_RID
[SEL-311L ...] [E] (ASCII string with)

Set Properties for Group 1 TID

Name:

Terminal Identifier:

Units:
i.e. Hz, Amps, Volts

Range:

Enter in all values and/or ranges separated by commas. For example
1..1000.25], 20.0..100.0, OFF, 0.25, A, B.
A step range may be followed by a stepsize contained in brackets
[0.25]. A stepsize has to be greater than zero.

Comments:

ASCII string with a maximum length of 30
Add comments here - comments cannot exceed 100 characters.
☐ Disable Panel in Setting Form
☐ Hide Panel in Setting Form

OK Cancel

SEL-311L 005 Settings Driver | Driver Version: 2.1.7.4 | Date: 11/24/03 4:01:34 PM | Part #: 0311LGHCAM25X01

Not Connected | Direct to COM1 2400 8NOne-1 | Terminal = EIA-232 Serial | File Xlar = YModem

Start! | Mirjo Lepisto-Wilson · Inbo... | Intecom C/S | screen captures Tony mod... | AcSELEditor® Design...

10:54 AM

FIG 5B

Replacement Sheet

AcSElevator® Designer DEMO - C:\Program Files\AcSElevator Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L 005 Settings Driver *)]

File Edit Options Import Export Help

Equation

[1~RID] = [UV~Terminal_Identifier]

[1~RID] = [UV~Group_1_RID]

Evaluation of Equation

EXAMPLE : BUS B, BREA...
SEL - 311L

Send Value

EXAMPLE : BUS B, BREA...
SEL - 311L

Relay Setting Range

ASCII string with a maximum length of 30
ASCII string with a maximum length of 30

Variable Selection List

Group 1_General Settings

Terminal_Identifier

BUS B, BREAKER 3

ASCII string with a maximum length of 30

Group_1_RID (Units)

SEL-311L

ASCII string with a maximum length of 30

SEL-311L 005 Settings Driver *

Driver Version: 2.1.7.4

Date: 10/28/2003 12:03:52 PM

Part #: 0311L6HCA4254X1

Not Connected

Direct to COM1 2400 8-None-1

Terminal = EIA-232 Serial

File Xfer = YModem

FIG 5C

Replacement Sheet

AcSELeRator® Designer DEMO - (C:\Program Files\AcSELeRator® Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L 005 Settings Driver...)]

File Settings Communication Window Help

File Edit Options Import Export Help

Equation

[1]*TID] = [UV*Terminal_Identifier]
[1]*RID] = [UV*Group_1_RID]

Evaluation of Equation

Send Value

Relay Setting Range

EXAMPLE : BUS B. BREA...
SEL - 311L

EXAMPLE : BUS B. BREA...
SEL - 311L

ASCII string with a maximum length of 30
ASCII string with a maximum length of 30

Variable Selection List

Group 1_General Settings

Terminal_Identifier

[E : BUS B. BREAKER 3 ...]

#ASCII string with a maximum length of 30

Group_1_RID (Units)

[SEL-311L ...]

#ASCII string with a maximum length of 30

Save Relay As

Relays

Example SEL-351A 003
Example SEL-351A 005
Example SEL-351S 002
Example SEL-351S 003
Example SEL-351S 005
Example SEL-421 001
Example SEL-421 002
Example SEL-421 003
Example SEL-421-1 001
Example SEL-421-1 002
Example SEL-421-1 003

Relay Name
311L-6 Application Design

OK Cancel

SEL-311L 005 Settings Driver * [Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA4254X1]

Not Connected [Direct to COM1 2400 B=None-1 Terminal = EIA-232 Serial File Xfer = YModem]

Microsoft Office 2000 S... [LP630 Projector Controls AcSELeRator® screen captures - Micros...]

9:44 AM

FIG 5D

Replacement Sheet

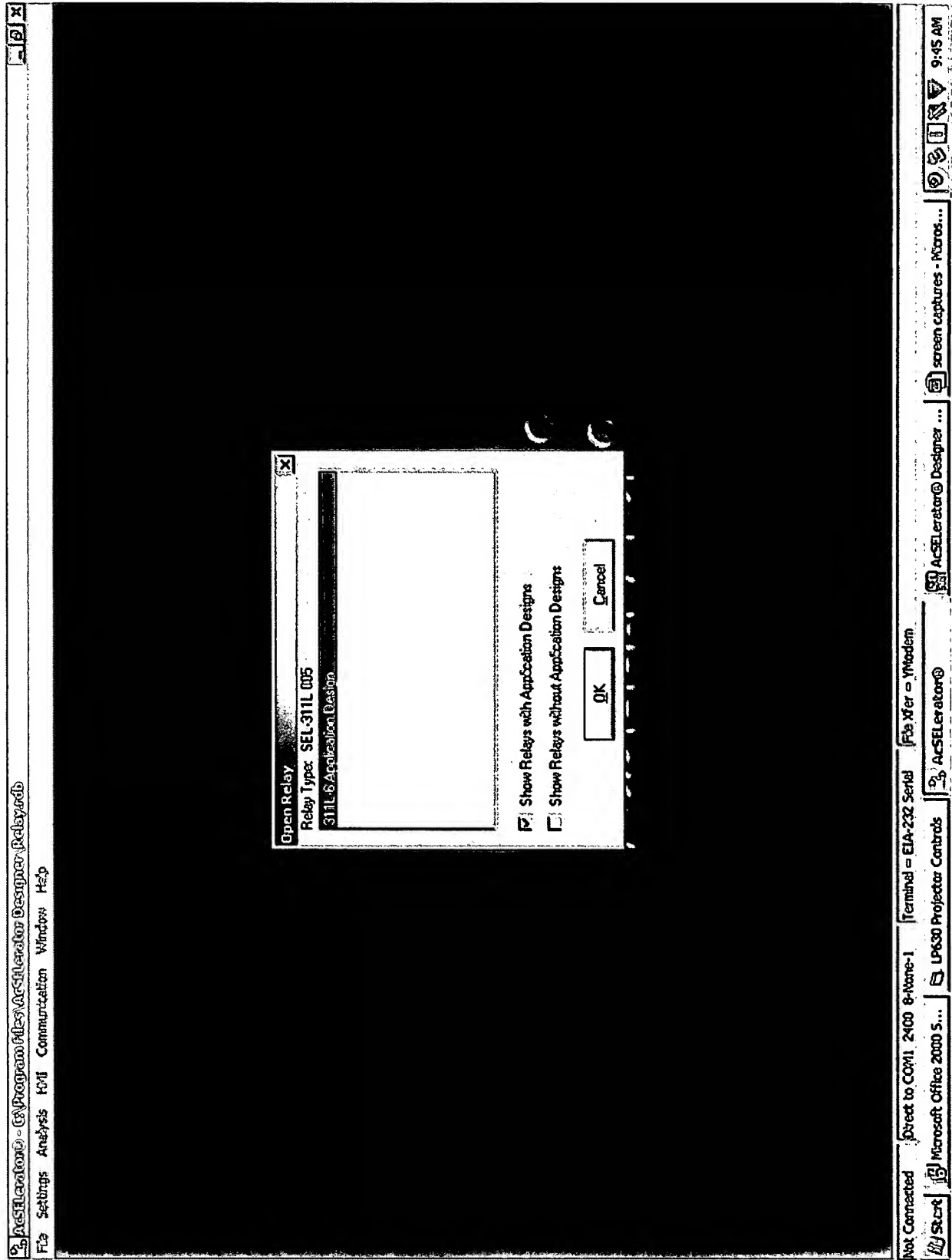


FIG 5E

Replacement Sheet

AcSElerator® - C:\Program Files\AcSElerator Designer\Relay.rdb - [Relay Editor - 311L-6 Application Design (SEL-311L 005 Settings Driver 0)]

File Settings Analysis HMI Communication Window Help

File Help

Group 1_General Settings

Terminal_Identifier

EXAMPLE : BUS 8, BR ...

ASCII string with a maximum length of 30

Group_1_RID (Units)

SEL-311L ...

ASCII string with a maximum length of 30

SEL-311L 005 Settings Driver *

Driver Version: 2.1.7.4

Date: 10/28/2003 12:03:52 PM

Part #: 0311L6HCA1254X1

Not Connected

Direct to COM1 2400 8-NONE-1

Terminal = EIA-232 Serial

File Xfer = YModem

FIG 5F

Replacement Sheet

ACSELEATOR Designer DEV-0 - C:\Program Files\ACSELEATOR Designer\Relayadb - (Relay Editor - New Relay 1 (SEL-311L 005 Settings Driver %))

File Settings Communication Windows Help

File Options << >> Copy Merge Compare Search Import Export Help

Group 1

Set 1

General Settings

Line Current Differential Settings

Backup Protection and Line Parameters

Phase Distance

Ground Distance

Phase Instantaneous Overcurrent

Residual Ground Instantaneous Overcurrent

Negative-Sequence Instantaneous Overcurrent

Phase Time-Overcurrent

Residual Ground Time-Overcurrent

Negative-Sequence Time-Overcurrent

Out-of-Step Settings

Load-Encroachment

Directional Elements

Voltage Elements

Synchrionism Check

Frequency Elements

Rectifying Relay

Switch-On-to-Fault

Comm. Assisted Trip Schemes

Zone 1 Extension Settings

Demand Metering

Other Settings

SEL Logic Control Equation Variable Timers

All Group 1 Settings

Logic 1

Graphical Logic 1

Logic Simulator 1

Group 2

Group 3

Group 4

Group 5

Group 6

Global

SER

Text

Channel X

General Settings

Relay Identifier Labels

RID Relay Identifier (30 chars)
SEL-311L

TID Terminal Identifier (30 chars)
EXAMPLE: BUS B, BREAKER 3

Current Transformer Ratio and Application Settings

CTR Local Phase (A,B,C) CT Ratio, CTR:1
200 Range = 1 to 6000

APP Application
311L Select: 07L, 07L21, 07L21P, 07LSP, 311L

EADVS Advanced Settings Enable
N Select: Y, N

SEL-311L 005 Settings Driver % Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 031116HCA4254X1 Group 1 : General Settings

Not Connected Direct to COM1 2400 8-N-1-1 Terminal = EIA-232 Serial File Xfer = Windows

FIG 6A

File	Options	<<	>>	Copy	Merge	Compare	Search	Import	Export	Help
<div> <div> Group 1 <ul style="list-style-type: none"> Set 1 General Settings Line Current Differential Settings Backup Protection and Line Parameters Phase Distance Ground Distance Phase Instantaneous Overcurrent Residual Ground Instantaneous Overcurrent Negative-Sequence Instantaneous Overcurrent Phase Time-Overcurrent Residual Ground Time-Overcurrent Negative-Sequence Time-Overcurrent Out-of-Step Settings Load-Encroachment Directional Elements Voltage Elements Synchronism Check Frequency Elements Reclosing Relay Switch-On-to-Fault Comm. Assisted Trip Schemes Zone 1 Extension Settings Demand Metering Other Settings SEL Logic Control Equation Variable Timers All Group 1 Settings Logic 1 Graphical Logic 1 Logic Simulator 1 </div> <div> Group 2 <ul style="list-style-type: none"> Group 3 Group 4 Group 5 Group 6 Global SER Text Channel X </div> </div>										
<h2>Line Current Differential Settings</h2> <p>Line Current Differential Configuration Settings</p> <p>E87L Number of 87L Terminals <input type="text" value="2"/> Select 2-3, 3R, N</p> <p>EHST High Speed Tripping <input type="text" value="2"/> Select 1-6, N</p> <p>EHSDTT Enable High Speed Direct Transfer Trip <input type="text" value="N"/> Select Y, N</p> <p>EDD Enable Delta Current Detect <input type="text" value="N"/> Select Y, N</p> <p>ETAP Tapped Load Coordination <input type="text" value="N"/> Select Y, N</p> <p>POHAN Primary 87L Channel <input checked="" type="checkbox"/> Select X, Y</p> <p>EHSC Hot-Standby Channel Feature <input type="text" value="N"/> Select Y, N</p> <p>CTR_X CTR at Terminal Connected to Channel X <input type="text" value="Range = 1 to 6000"/></p> <p>CTR_Y CTR at Terminal Connected to Channel Y <input type="text" value="200"/> Range = 1 to 6000</p>										

FIG 6B

File Edit Options Import Export Help
 File Settings Communication Window Help

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[1^CTR_X] = [UV^Group_1_CTR_X]	200	200	1..6000
[1^CTR] = [UV^Group_1_CTR]	200	200	1..6000

Variable Selection List

Group_1_General Settings

Group_1_CTR (Units) [200] [Range = 1..6000]

Group_1_CTR_X (Units) [200] [Range = 1..6000]

Enter in Tab Name
 CTR Settings

OK Cancel

Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA4254X1
 Direct to COM1 2400 8-None-1 Terminal = EIA-232 Serial File Xfer = YModem
 Microsoft Office 2000 S... LP630 Projector Controls ACSerator® ACSerator® Design... screen captures - Micros...

FIG 6C

Replacement Sheet

SEL-311L 005 Settings Driver *
Not Connected

Driver Version: 2.1.7.4
Direct to COM1 2400 8-NONE-1

Date: 10/28/2003 12:03:52 PM
Terminal = EIA-232 Serial

Part #: 0311L6MCA4254X1
File Xfer = YModem

File Edit Options Import Export Help

File Settings Communication Window Help

Equation

1"

CTR_X1

=

[UV"Group_1_CTR_X_1]

1"

CTR1

=

[UV"Group_1_CTR_1]

Evaluation of Equation

200

Send Value

200

Relay Setting Range

1..6000

200

200

1..6000

Variable Selection List

CTR Settings

Group_1_CTR_1 (Units)

200

Range = 1..6000

Group_1_CTR_X_1 (Units)

200

Range = 1..6000

FIG 6D

ACSELEATOR® Designer DEMO - C:\Program Files\AcSELEATOR Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L 00S Settings Driver *)]

File Settings Communication Window Help

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[1^CTR_X] = [UV]	200	200	1..6000
[1^CTR] = [UV]^G	200	200	1..6000

Error Messages

Allow switching to Editor Mode From Setting Form

Part Number

Variable Selection List

CTR Settings

Group_1_CTR_1 (Units)

[200] [Range = 1..6000]

Group_1_CTR_X_1 (Units)

[200] [Range = 1..6000]

SEL-311L 00S Settings Driver • Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311LGHC4A254X1

Not Connected Direct to COM1 2400 8-NONE-1 Terminal = EIA-232 Serial File Xfer = YModem

Start Microsoft Office 2000 S... LP630 Projector Controls ACSELEATOR® screen captures - Macros...

9:55 AM

FIG 6E

Replacement Sheet

ACSElevator® - C:\Program Files\ACSElevator Designer\RelayTab - (Relay Editor - 3101-6 Application Design 2 (SEL-3101 005 Settings Driver 2))

File Settings Analysis HMI Communication Window Help

File Options Help

CTR So View Editor Mode Ctrl+E

Group_1_CTR_1 (Units)

200 Range = 1..6000

Group_1_CTR_X_1 (Units)

200 Range = 1..6000

SEL-3101 005 Settings Driver * Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA4254X1

Not Connected Direct to COM1 2400 8-None-1 Terminal = EIA-232 Serial File Xfer = YModem

Start Microsoft Office 2000 S... ACSElevator® UP600 Projector Controls ACSElevator® Designer ... screen captures - Macros...

9:56 AM

FIG 6F

Replacement Sheet

AcSELErator® - C:\Program Files\AcSELErator\Designer\Relay.rdb - [Relay Editor - 3011-6 Application Design 2 (SEL-311L 005 Settings Driver '0)]]

File Settings Analysis HMI Communication Windows Help

File Options << >> Copy Merge Compare Search Input Export Help

Group 1

Set 1

General Settings

Line Current Differential Settings

Backup Protection and Line Parameters

Phase Distance

Ground Distance

Phase Instantaneous Overcurrent

Residual Ground Instantaneous Overcurrent

Negative-Sequence Instantaneous Overcurrent

Phase Time-Overcurrent

Residual Ground Time-Overcurrent

Negative-Sequence Time-Overcurrent

Out-of-Step Settings

Load-Encroachment

Directional Elements

Voltage Elements

Synchronization Check

Frequency Elements

Reclosing Relay

Switch-On-to-Fault

Comm. Assisted Trip Schemes

Zone 1 Extension Settings

Demand Metering

Other Settings

SE Logic Control Equation Variable Timers

All Group 1 Settings

Logic 1

Graphical Logic 1

Logic Simulator 1

Group 2

Group 3

Group 4

Group 5

Group 6

Global

SER

Text

Channel X

General Settings

Relay Identifier Labels

RID Relay Identifier (30 chars)
SEL-311L

TID Terminal Identifier (30 chars)
EXAMPLE: BUS B, BREAKER 3

Current Transformer Ratio and Application Settings

CTR Local Phase (A|B|C|CT Ratio, CTR:1
200 Range = 1 to 8000

APP Application
311L Select 87L, 87L21, 87L21P, 87LSP, 311L

EADVS Advanced Settings Enable
N Select Y, N

SEL-311L 005 Settings Driver ® Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA4254X1 Group 1 : General Settings

Not Connected Direct to COM1 2400 8-NONE-1 Terminal = EIA-232 Serial File Xfer = Windows

FIG 6G

The screenshot displays the 'AcSELeRator Designer DEMO' software. The 'Equation Builder' dialog box is open, showing the equation $I^{UV_Group_1_CTR_X}$. The interface includes a menu bar (File, Edit, Options, Search, Import, Export, Help) and a status bar at the bottom indicating 'Not Connected', 'Direct to COM1 2400 8None-1', 'Terminal = EIA-232 Serial', 'Date: 11/24/03 4:01:34 PM', 'Part #: 0311L6HCA42500', and 'File Xtr = YModem'. The status bar also shows 'Screen captures Tony mod...' and 'AcSELeRator Designer...'. The 'Equation Builder' window has a title bar and a large text area for the equation. Below the equation, there are buttons for 'And', 'Or', 'Not', and 'Relay Settings'. The 'Relay Settings' button is highlighted. To the right of the equation, there are buttons for 'OK', 'Cancel', and 'Manage Variables'. The background shows the main software window with a menu bar (File, Edit, Options, Search, Import, Export, Help) and a status bar at the bottom.

FIG 7A

FIG 7B

[illegible]

FIG 7C

Replacement Sheet

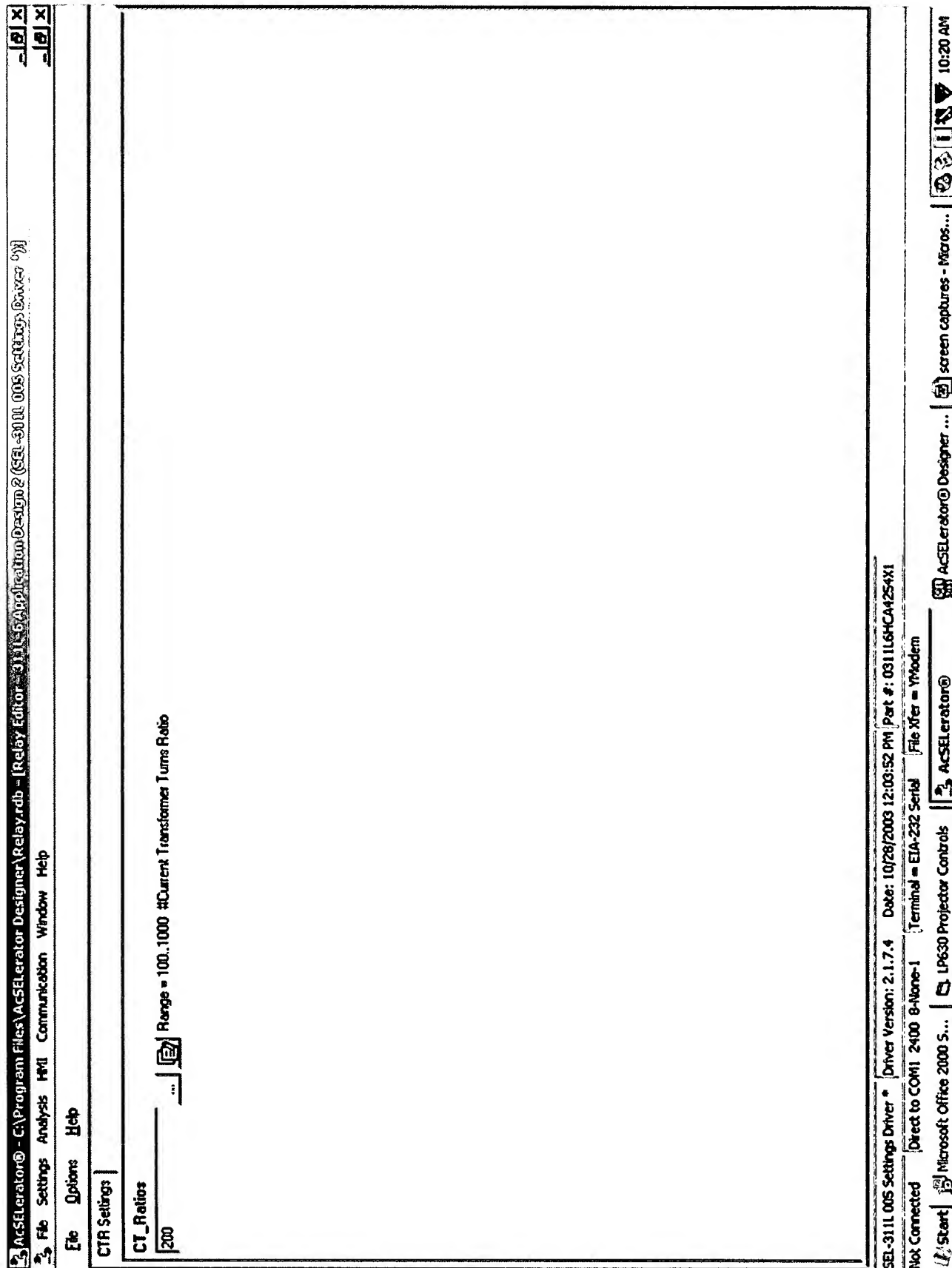


FIG 7D

File Edit Options Import Export Help

Equation

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[1^CTR_X] = [UV^CT_Ratios]	200	200	1..6000
[1^CTR] = [UV^CT_Ratios]	200	200	1..6000

Add Equation
 Edit Equation
 Delete Equation
 Manage Custom Variables

Variable Selection List

CTR Settings

CT_Ratios
 [200] Range = 100..1000 #Current Transformer Turns Ratio

Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA4254X1
 Not Connected Direct to COM1 2400 8-NONE-1 Terminal = EIA-232 Serial File Xfer = YModem
 Start Microsoft Office 2000 S... UP630 Projector Controls AcSELElatorD screen captures - Micros...

FIG 8A

The screenshot displays the AcSElator software interface. The main window is titled 'AcSElator - Designer DEMO - C:\Program Files\AcSElator Designer\Relay.rdb - [Relay Editor - 311L-6 Application Design 4 (SEL-311L-005 Settings)]'. The 'Equation Builder' window is open, showing the equation $(I^{CTR_X}) = (UV^{CTR_Ratios})$. The 'Relay Settings' dialog box is open, showing the 'Relay Settings' tab. The dialog box contains a list of variables: 'CT_Ratios', 'Group_1_CTR_1', and 'Group_1_CTR_X_1'. The 'Send Value' is set to 200, and the 'Relay Setting Range' is 1.6000 to 1.6000. The 'Manage Variables' button is visible. The background shows the 'Equation Builder' window with the equation $(I^{CTR_X}) = (UV^{CTR_Ratios})$.

FIG 8B

[illegible]

FIG 8C

[illegible]

FIG 8D

[illegible]

FIG 8E

Replacement Sheet

AcSElevator® - C:\Program Files\AcSElevator Designer\Relay.rdb - [Relay Editor - 311L 005 Settings (Active ')]

File Settings Analysis MMI Communication Window Help

File Options Help

CTR Settings

Nominal Current (Amps Primary)

800

Range = 600, 800, 1000, 1500, 2000 #Enter Primary Nominal Current, e.g. for 1000.5 CTs, enter 1000

SEL-311L 005 Settings Driver * Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA1254X1

Not Connected Direct to COM1 2400 8-None-1 Terminal = EIA-232 Serial File Xfer = YModem

Start Microsoft Office 2000 S... LP630 Protector Controls ACSElevator® ACSElevator® Designer ... screen captures - Micros... 10:35 AM

FIG 8F

The screenshot displays the ACSELEATOR Designer DEMO interface. The main window is titled 'ACSELEATOR Designer DEMO - L:\Program Files\ACSELEATOR Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L 005 Settings Driver *)]'. The 'Relay Setting Range' tab is active, showing 'Evaluation of Equation' as 'TRIP' and 'Relay Setting Range' as 'SELogic equation'. A 'Manage Custom Variables' dialog box is open in the foreground. This dialog features a 'Variable Selection List' on the left containing 'Selogic_1_OUT101 (Units)' and 'TRIP'. The central pane lists four variables: 'Selogic_1_OUT101', 'Test_Overcurrent', 'Test_Overvoltage', and 'Test_Undervoltage'. On the right side of the dialog, there are four buttons: 'Add Variable', 'Rename Variable', 'Delete Variable', and 'Close'. The status bar at the bottom indicates 'Driver Version: 2.1.7.4', 'Date: 10/28/2003 12:03:52 PM', 'Port #: 0311L6HCA4254X1', 'Terminal = EIA-232 Serial', 'File Xfer = YModem', 'Direct to COM1 2400 8-NONE-1', 'UP630 Projector Controls', 'ACSELEATOR', and 'screen captures - Micros...'.

FIG 9A

Replacement Sheet

ACSELErator® Designer DS-V0 - C:\Program Files\ACSELErator Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L OOS Settings Driver V)]

File Settings Communication Window Help

File Edit Options Import Export Help

Equation

[L1"OUT101] = [UV"Selogic_1_OUT101]

Relay Setting Range
SELogic equation

Variable Selection List

Selg

Add Equation
Edit Equation
Delete Equation
Manage Custom Variables

Selogic_1_OUT101 (Units)

TRIP

#SELogic equation

SEL-311L OOS Settings Driver * Driver Version: 2.1.7.4 Date: 10/28/2009 12:03:52 PM Part #: 0311L6HCA425-X1

Net Connected Direct to COM1 2400 8-NONE-1 Terminal = EIA-232 Serial File Xfer = YModem

Start Microsoft Office 2000 S... LP630 Projector Controls ACSELErator® screen captures - Micros... 10:47 AM

FIG 9B

AcSELEditor - Designer DEMO - C:\Program Files\AcSELEditor Designer\Relay.rdb [Relay Editor - New Relay 1 (SEL-311L 00S Settings Driver...)]

File Edit Options Import Export Help

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[L1*OUT101] = ([UV*SeLogic_1_OUT101])	TRIP	TRIP	SELogic equation

Equation Builder

[UV*Test_Overcurrent]

Apply
Close
Manage Variables

=

[RB*SIG] + ([RB*50P1] + [RB*51G])

And
Or
Not
+
-
*
/
>
<
=
>=
<=

Double-click or click-and-drag to add elements and variables to your expression.

- Relay Settings
- Custom Variables
- Relay Word Bits
- Analog Quantities

201LOG	32QF	50LB	51GTC	59N2	67P
202LOG	32QGE	50LC	51P	59Q	67P
203LOG	32OR	50LG	51PT	59S	67P
204LOG	32VE	50P1	51PTC	59V1	67P
205LOG	3P27	50P2	51Q	59VA	67P
206LOG	3P59	50P3	51QR	59VP	67P
25A1	3PO	50Q1	51QT	59VS	67P
25A2	3POX	50Q2	51QTC	59V5	67P
27A	3POY	50Q3	51QTC	67G1T	67Q
27AB	50_51	50Q4	52AA	67G1TC	67Q
27B	50ABC	50OF	52AB	67G2	67Q
27B81	50G1	50QR	52AC	67G2T	67Q
27BC	50G2	50RA	58A	67G2TC	67Q
27C	50G3	50RB	58B	67G3	67Q
27CA	50G4	50RC	58C	67G3TC	67Q
27S	50GF	50RG	58D	67G4	67Q
32GF	50GR	5IG	58E	67G4T	67Q
32GR	50L	51GR	58FA	67G4TC	67Q
32IE	50L2	51GT	58NI	67P1	67Q
32OE	50LA				67Q

☒ Relay Settings
☐ Custom Variables
☐ Test Overcurrent
☐ Test Undervoltage

Variable Selector

Left <Group> <Setting> Range = <None Selected>

Not Connected | Direct to COM1 | 2400 8-NONE-1 | Terminal = EIA-232 Serial | File Xfer = YModem

Date: 10/28/2003 12:03:52 PM | Part #: 0311L6HCA4254X1

AcSELEditor®
 Microsoft Office 2000 S...

AcSELEditor® Design...
 screen captures - Micros...

10:53 AM

FIG 9C

AcSElerator® Designer DE40 - C:\Program Files\AcSElerator Designer\Relay.rdb - [Relay Editor - New Relay 1 (SEL-311L D05 Settings Driver*)]

File	Edit	Options	Import	Export	Help
Equation					
Equation			Evaluation of Equation	Send Value	Relay Setting Range
[LT~OUT101] = [UV~Setlogic 1 OUT101]			YRIP	YRIP	SE Logic equation
[UV~Test_Overcurrent] = [RB~51G] + [RB~50P1] + [RB~51Q]			51G + 50P1 + 51Q		N/A
[UV~Test_Overvoltage] = [RB~59A] + [RB~59B] + [RB~59C]			59A + 59B + 59C		N/A
[UV~Test_Undervoltage] = [RB~27A] + [RB~27B] + [RB~27C]			27A + 27B + 27C		N/A

Variable Selection List

Selegic 1_Output Contacts

Sedlogic_1_OUT101 (Units)

TRIP #SELogic equation

55EL-311L 005 Settings Driver * Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311U6HCA4254X1

Not Connected Direct to COM1 2400 B=None-1 Terminal = EIA-232 Serial File Xfer = YModem

Start | Microsoft Office 2000 S... | UPS30 Protector Controls | AcSELevator®

screen captures - Micros...

FIG 9D

Equation	Evaluation of Equation	Send Value	Relay Setting Range
[L1_OUT101] = (L1*SELogic_1_OUT101) (L1*Test_Overcurrent) = (R8*51G) + (R8*50P1) + (R8*51Q) (L1*Test_Overvoltage) = (R8*53A) + (R8*53B) + (R8*53C) (L1*Test_Undervoltage) = (R8*27A) + (R8*27B) + (R8*27C)	TRIP 51G + 50P1 + 51Q 53A + 53B + 53C 27A + 27B + 27C	TRIP	SELogic equation N/A N/A N/A

Variable Selection List

SELogic_1_Out101
 TRIP

SELogic_1_Out101

Range = TEST_C

Set Properties for SELogic_1_OUT101

Name: SELogic_1_OUT101

Units:
 i.e. Hz, Amps, Volts

Range: TEST_OVERCURRENT, TEST_OVERVOLTAGE, TEST_UNDERVOLT
 Enter in all values end/or ranges separated by commas. For example
 1..100.25], 200.0, 100.0, OFF, 0.25, A, B.
 A step range may be followed by a stepsize contained in brackets
 (0.25). A stepsize has to be greater than zero.

Comments:
 Select one from list
 Add comments here - comments cannot exceed 100 characters.
☐ Disable Panel in Setting Form
☐ Hide Panel in Setting Form

OK Cancel

FIG 9E

Replacement Sheet

AcSElerator® - C:\Program Files\AcSElerator Designer\Relay.rdb - [Relay Editor - 311L-6 Application Design S (SEL-301L 005 Settings Driver 3)]

File Settings Analysis MMI Communication Window Help

File Help

Setlogic 1 Output Contacts

Setlogic_1_OUT101

52A

Range = TEST_OVERCURRENT, TEST_OVERVOLTAGE, TEST_UNDERVOLTAGE, TRIP #Select one from list

SEL-311L 005 Settings Driver * Driver Version: 2.1.7.4 Date: 10/28/2003 12:03:52 PM Part #: 0311L6HCA1254X1

Not Connected Direct to COM1 2400 8-NONE-1 Terminal = EIA-232 Serial File Xfer = YModem

Start Microsoft Office 2000 S... LP630 Protector Controls AcSElerator® screen captures - Micros... 10:58 AM

FIG 9F

SEL-311L QMS Settings Driver			
File	Edit	Options Search Import Export Help	View
<div style="float: left; width: 100px;"> Error Messages [UV] Test Overvoltage [UV] Test Undervoltage [UV] Test Overcurrent [UV] Test Undercurrent </div> <div style="float: right; width: 100px;"> Allow switching to Error Mode From Setting Form <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>			
Equation			
[R1]OUT101 = IUG			
[UV] Test Overvoltage			
[UV] Test Undervoltage			
		Port Number	

Equation	Evaluation of Equation	Send Value	Relay Setting Range
5IG * 50PI + 5IQ	5IG * 50PI + 5IQ	5IG * 50PI + 5IQ	SELOGIC equation
59A * 59B + 59C	59A * 59B + 59C	N/A	N/A
27A * 27B + 27C	27A * 27B + 27C	N/A	N/A

Variable Selection List

SELOGIC_1_Output Contacts	Range = TEST_OVERCURRENT, TEST_OVERVOLTAGE, TEST_UNDERVOLTAGE, TRIP (Selected from Est)
SELOGIC_1_OUT101	
Test Overcurrent	

FIG 10A

File Settings Communication Window Help

File	Edit	Options	Import	Export	Help
Equation					
[L1*OUT101] = [UV*Selogic_1_OUT101]					
[UV*Test_Overcurrent] = ([R8*51G] + [R8*50P1] * [R8*51Q])					
[UV*Test_Overvoltage] = ([R8*59A] + [R8*59B] + [R8*59C])					
[UV*Test_Undervoltage] = ([R8*27A] + [R8*27B] + [R8*27C])					
Equation			Evaluation of Equation	Send Value	Relay Setting Range
			51G + 50P1 + 51Q	51G + 50P1 + 51Q	SE Logic equation
			51G + 50P1 + 51Q		N/A
			59A + 59B + 59C		N/A
			27A + 27B + 27C		N/A

Sellogic 1_Output Contacts

TEST_OVERCURRENT	Range = TEST_OVERCURRENT, TEST_OVERVOLTAGE, TRIP #Select one from list

Settings Group/Class Select

Send Groups

	Text
<input checked="" type="checkbox"/>	Seologic 1
<input type="checkbox"/>	Seologic 2
<input type="checkbox"/>	Seologic 3
<input type="checkbox"/>	Seologic 4
<input type="checkbox"/>	Seologic 5
<input type="checkbox"/>	Seologic 6
<input type="checkbox"/>	SER
<input type="checkbox"/>	Channel X
<input type="checkbox"/>	Channel Y

OK **Cancel**